

Internal Letter



Rockwell International

Date • November 10, 1989

No. • wsesec.tcj

TO (Name, Organization, Internal Address)

- G. H. Setlock
- Env & Health Prog
- Building 250

FROM (Name, Organization, Internal Address, Phone)

- T. C. Johnson
- WP&DE
- Building 130
- 5037

SUBJECT • SECONDARY CONTAINMENT REQUIREMENTS FOR THE
WASTE SYSTEM EVAPORATOR PROJECT (394904)

In Ralph Hawes' response to my letter of October 20, 1989, he stated "... the lines in question must have some type of secondary containment while outside the building." I interpret this to mean the vapor lines from the vapor bodies to the building and the rupture disk release collection lines. As the design is now envisioned, the tops of the vapor bodies would protrude above the roof of the metal enclosure around the lower part of the vapor bodies (see the attached sketch). The two lines from each vapor body originate outside the metal structure. It would not be consistent to have secondary containment around pipes when the top portion of the vapor bodies have no secondary containment.

The metal enclosure was included to provide freeze protection, a security boundary, and incidentally as an aid to confining liquid spills to the basin under the vapor bodies. The metal enclosure has not been specified in the design criteria to have filtered exhaust ventilation, so the air in the metal enclosure will be vented directly to the atmosphere. Any vapor release inside the vapor body enclosure will disperse in the air and go to the outside atmosphere. Since the tops of the vapor bodies and vapor carrying lines contain only vapor which disperses in the atmosphere if released, there is no difference where vapor releases ultimately go whether they occur inside or outside the metal enclosure.

This was the rationale for specifying that the metal enclosure include only the liquid holding sections of the vapor bodies.

The only practical way to provide secondary containment for the vapor bodies and vapor lines would be to make the enclosure large enough to cover the vapor body and run the vapor lines inside a second pipe. Vapor lines range from 8 to 14 inch diameter pipe with about 3 inches of insulation. This would require a large secondary pipe. To make the metal enclosure enclose the entire vapor body would add significantly to the size of the structure and the cost of the project. The structure would extend above the 374 roof level about thirty feet and be about seventy feet tall (see sketch).



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With this additional information, consider the containment philosophy that is appropriate for this project and respond as soon as possible. The philosophy will have a significant impact on the design and cost of the structure.

T C Johnson

T. C. Johnson, Project Engineer
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cc:

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